

## CLAIMS

What is claimed:

1. A method of comparing a plurality of sources from a new file and an old file comprising  
5 creating a compressed string.

2. The method of claim 1 wherein the step of creating a compressed string further comprises  
removing all blank spaces except for code within quotation marks from each of the plurality of  
sources.

3. The method of claim 2 further comprising the step of placing all characters in the compressed  
string in words consisting of four byte storage cells.

4. The method of claim 2 further comprising identifying each word with a pointer.

5. The method of claim 2 further comprising preceeding each line with a first control word, a  
second control word, a third control word and a fourth control word.

6. The method of claim 4 further comprising identifying a first pointer and a last pointer.

7. The method of claim 6 further comprising placing the first pointer and the last pointer in a  
links array.

8. The method of claim 1 further comprising determining whether a selected line of length L from the old file line is identical to a line of length L from the new file.

9. The method of claim 8 further comprising selecting a first line from the old file.

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10. The method of claim 8 further comprising determining the length L of a selected line.

11. The method of claim 8 further comprising comparing the selected line to the first line of the new file.

12. The method of claim 8 further comprising determining whether the selected line from the old file matches the selected line from the new file.

13. The method of claim 12 further comprising, responsive to a determination that the selected  
15 line from the old file does not match the selected line from the new file, holding the position in the old file, going through the new file and examining only the lines of length L in the new file.

14. The method of claim 13 further comprising determining whether the held line of length L in the new file matches a line of length L from the old file, and responsive to a determination that a  
20 line of length L from the new file matches a line of length L from the old file, identifying all of the lines from the first line of Length L examined in the new file to the matched line in the new file as lines that have been added to the new file.

15. The method of claim 13 further comprising determining whether a line of length L from the new file matches a line of length L from the old file, and responsive to a determination that a line of length L from the new file does not match a line of length L from the old file, holding the position of the first line of length L of the new file, going through the old file, and examining only lines of length L in the old file.

16. The method of claim 15 further comprising, responsive to a determination that the line of length L from the new file matches a line of length L from old new file, identifying all of the lines in the old file between the first line selected and the matching line as deletions.

17. The method of claim 15 further comprising, responsive to a determination that the selected line from the old file does not match a line of length L from the new file, identifying the old line as changed.

18. An apparatus for comparing a plurality of sources, comprising:

a programmable processor;

a storage medium;

a comparison program residing in the storage medium;

a compression program residing in the storage medium;

an old file residing in the storage medium;

a new file residing in the storage medium;

wherein the compression program causes the processor to:

create a new file compressed string;

create an old file compressed string;

wherein the comparison program causes the processor to:

5 compare lines of length L in the new file compressed string and the old file compressed string; and

identify lines that have been changed, added or deleted.

19. The apparatus of claim 18 wherein the compression program creates the new file compressed string and the old file compressed string by removing all blank spaces except for code within quotation marks from all lines in the old file and the new file.

20. The apparatus of claim 19 wherein the compression program places all characters in the compressed string into words consisting of four byte storage cells.

21. The apparatus of claim 20 wherein the compression program creates a pointer to identify each word.

22. The apparatus of claim 19 wherein the compression program places a first control word, a second control word, a third control word and a fourth control word in front of each line in the compressed string.

23. The apparatus of claim 21 wherein the compression program identifies a first pointer and a last pointer.

24. The apparatus of claim 23 wherein the compression program places the first pointer and the last pointer in a links array.

25. An apparatus for comparing a plurality of sources, comprising:

a first computer having a first programmable processor and a first storage medium;

a second computer having a second programmable processor and a second storage medium;

a comparison program residing in the first storage medium;

a compression program residing in the first storage medium;

an old file residing in the second storage medium;

a new file residing in the second storage medium;

wherein the first computer and the second computer are connected by a network;

wherein the compression program causes the first programmable processor to:

create a new file compressed string;

create an old file compressed string;

wherein the comparison program causes the first programmable processor to:

compare lines of length L in the new file compressed string and the old file compressed string; and

identify lines that have been changed, added or deleted.

26. The apparatus of claim 25 wherein the compression program creates the new file compressed string and the old file compressed string by removing all blank spaces except for code within quotation marks from all lines in the old file and the new file.

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27. The apparatus of claim 26 wherein the compression program places all characters in the compressed string into words consisting of four byte storage cells.

28. The apparatus of claim 27 wherein the compression program creates a pointer to identify each word.

29. The apparatus of claim 27 wherein the compression program places a first control word, a second control word, a third control word and a fourth control word in front of each line in the compressed string.

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30. The apparatus of claim 28 wherein the compression program identifies a first pointer and a last pointer.

31. The apparatus of claim 30 wherein the compression program places the first pointer and the last pointer in a links array.

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